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F A C T O R Y

SCCM 2007 OSD Review

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1   Version

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2   Introduction

Knowledge Factory Consulting AB, further named KF in this document, has performed a SCCM 2007 OSD Platform review for Fermilab. The review, and the following mitigations, was performed between October 31 and November 4.

3   Review Summary

After reviewing the Fermilab SCCM 2007 OSD platform, it is clear that the Fermilab base SCCM platform, it's infrastructure, and current configuration well supports all the critical requirements for OS Deployment at Fermilab.

That being said, during the review KF highlighted several new operational processes and additional features that Fermilab could benefit from. Some of these items were implemented during the review, some were schedule for later. Here follows a summary of these items, each item is explained in more detail in section 4 (Mitigations).

- Generic infrastructure and developments
  - o Integration with Microsoft Deployment Toolkit (MDT) 2010
  - o Support for Advanced Format Hard Drives (4k drives)
  - o Version Control (Task Sequences)
  - o Duplicate Records - Merging obsolete records
  - o Automated builds of the Fermilab reference images
- Boot images
  - o Log parsing in the boot image (trace32)
  - o Increasing Client Log file size
  - o Remote Monitoring
  - o Deployment wizard automation
- Deployment Operations
  - o Technician/Help Desk Frontend for deployment

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- Troubleshooting
    - Processes and Deployment Simulation
    - Increasing default error dialog timeout
    - Server Side logging – Copy logs from client
- Other features
    - Applying Updates – Updating during Task Sequence process

In addition to the above list we also discussed using additional third party solutions for managing the environment. In section 5 in this document we have listed a few commonly used extensions to SCCM 2007.

4 Mitigations

Here follows a more detailed (technical) explanation of the features and operational processes suggested for Fermilab's SCCM environment. They are divided into items that were addressed during the review, and items that are scheduled for later.

4.1 Implemented features and operational processes

The below list are the items that were implemented during the review.

Integration with Microsoft Deployment Toolkit (MDT) 2010 – MDT 2010 is a free solution from Microsoft that extend SCCM 2007 with well over hundred additional deployment features where the most powerful are the rules engine, which enabled dynamic deployments, and the development framework that allows for easier customization of the SCCM environment,

Support for Advanced Format Hard Drives (4k drives) – 4k drives are being added in more and more hardware models. To support these new devices, the KB982018 hotfix was added to the boot image.

Automated builds of the Fermilab reference images – MDT 2010 Lite Touch has been implemented to support an automated build of the reference image,

Log parsing in the boot image (trace32) – Trace32 has been added to the boot image.

Increasing Client Log file size – The default SMSTS.LOG file has been increased from 1 MB to 10 MB.

Deployment wizard automation – The boot image has been configured not to display the SCCM deployment wizard.

Technician/Help Desk Frontend for deployment – A Frontend for Help Desk and/or Technicians have been added to the solution. Based on HTA on the client side, and web services on the server side.

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Increasing default error dialog timeout – The default Error timeout for Task Sequence Error were set to 86400 seconds.

Server Side logging – Copy logs from client - Task Sequence configured to copy the logs to the server in the event of a failure, or when the task sequence successfully is completed.

4.2 Features and operational processes scheduled for later

Version Control (Task Sequences) – Project from Codeplex that activates versioning control and auditing of task sequence updates.

Merging obsolete records – Script developed by Kristian F. Thomsen's that can run either scheduled on the server or driven by event (status) on the server.

Remote Monitoring – Using Remote Recovery from DaRT in the WinPE boot image.

Processes and Deployment Simulation – Environment to quickly simulate a deployment (the rules) without actually doing a deployment.

Applying Updates – Updating during Task Sequence process – Running a script during the Task Sequence instead of install updates after the Task Sequences has finished.

5 Third Party Extensions

Here follows resources to third party extensions and solutions integrated with SCCM 2007 that were discussed during the review.

Tools and Utilities for ConfigMgr 2007 from myITforum Wiki
http://www.myitforum.com/myITWiki/SCCMTools.ashx

Shopping from 1E
http://www.1e.com/it-efficiency/software/shopping-software-deployment/

Companies in the "System Center Alliance Members" partner program with Microsoft
http://www.microsoft.com/systemcenter/ko/kr/alliance-members.aspx